

METHOD, APPARATUS AND COMPUTER PROGRAM PRODUCT**FOR EFFICIENT , LARGE COUNTS OF PER THREAD**

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PERFORMANCE EVENTS**ABSTRACT**

Performance events are counted for a computing system. This includes designating a first processor counter as a low-order counter for counting a certain performance event encountered
10 by the processor and associating with the first counter a second counter as a high-order counter. The first counter is incremented responsive to detecting the performance event for a first processing thread. Responsive to a second thread, an accumulator in system memory for the first thread and first and second counters is updated. Responsive to the first thread becoming active, values of the first and second counters are loaded from the accumulator. Responsive to a user
15 call to read and return a combined value, a first instance of the second counter is read, then the first counter is read and a second instance of the second counter is read before returning the combined value.